

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/081642 A3

(51) International Patent Classification⁷: **G02B 5/30**, C08K 5/105, 5/3492, C08L 1/10, G02F 1/13, 1/1335, 1/13363

(74) Agent: **IIDA, Toshizo**; ISHII Bldg. 3F, 1-10, Shimbashi 3-chome, Minato-ku, Tokyo 1050004 (JP).

(21) International Application Number:
PCT/JP2005/003688

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 25 February 2005 (25.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2004-052562	26 February 2004 (26.02.2004)	JP
2004-058648	3 March 2004 (03.03.2004)	JP
2004-072478	15 March 2004 (15.03.2004)	JP
2004-174028	11 June 2004 (11.06.2004)	JP
2004-273996	21 September 2004 (21.09.2004)	JP

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **FUJI PHOTO FILM CO., LTD.** [JP/JP]; No. 210 Nakanuma, Minami-ashigara-shi, Kanagawa 2500193 (JP).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **OHGARU, Ikuko** [JP/JP]; c/o Fuji Photo Film Co., Ltd., No. 210 Nakanuma, Minami-ashigara-shi, Kanagawa 2500193 (JP). **FUKA-GAWA, Nobutaka** [JP/JP]; c/o Fuji Photo Film Co., Ltd., No. 210 Nakanuma, Minami-ashigara-shi, Kanagawa 2500193 (JP). **YANAGI, Terukazu** [JP/JP]; c/o Fuji Photo Film Co., Ltd., No. 2716 Hongou, Ebina-shi, Kanagawa 2430417 (JP). **KAWAMOTO, Hiroshi** [JP/JP]; c/o Fuji Photo Film Co., Ltd., No. 210 Nakanuma, Minami-ashigara-shi, Kanagawa 2500193 (JP).

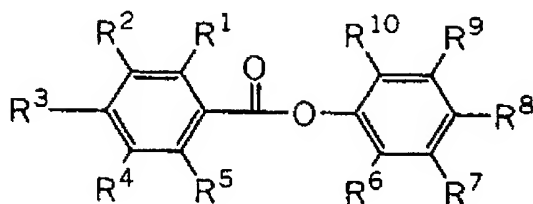
Published:

— with international search report

(88) Date of publication of the international search report:
3 November 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL FILM, OPTICAL COMPENSATION SHEET, POLARIZING PLATE, AND LIQUID CRYSTAL DISPLAY DEVICE



(I)

(57) Abstract: An optical film, which contains a cellulose acylate, at least one compound of formula (I) in an amount of 0.01 to 20 mass parts, and at least one cyclic compound having at least three substituents in an amount of 0.01 to 20 mass parts, to 100 mass parts of the cellulose acylate: Formula (I) wherein R¹ to R⁷, R⁹ and R¹⁰ each independently is a hydrogen atom or a substituent; at least one of R¹ to R⁵ is an electron-donating group; R⁸ is a hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, an aryl group, an alkoxy group, an aryloxy group, an alkoxycarbonyl group, an

acylamino group, an alkylcarbonyloxy group, a cyano group, or a halogen atom; and an optical compensation sheet, a polarizing plate, and a liquid crystal display device, each of which uses the optical film.



WO 2005/081642 A3